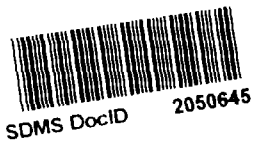
ARCADIS G&M Inc
6 Terry Drive
Suite 300
Newtown
Pennsylvania 18940
Tel 267 685-1800
Fax 267 685-1801

Environmental

H. Thomas Fridirici
PADEP
Southcentral Regional Office
909 Elmerton Avenue
Harrisburg, PA 17110-8200



Subject
Pre-Drilling Plan Addendum
Proposed [redacted] South Water Supply Well,
Bally Groundwater Contamination Superfund Site,
Bally Borough, Berks County, Pennsylvania

Date
2 August 2004

ARCADIS Project No
NP000597.0002.0005B

Contact
Michael Bedard

Extension
(267) 685-1800

Dear Mr. Fridirici:

ARCADIS is writing in response to the comments in your February 3, 2004 letter regarding the monitoring network to be used during the aquifer test at the [redacted] south site and other comments made to ARCADIS. The comments from your February letter are included below in italics with ARCADIS's response following in standard text. We responded to some of your comments in our letter dated May 27, 2004. This letter provides additional information regarding the monitoring network for a final aquifer pumping test at the [redacted] south site and assumes that reasonable access will be available for Sunbeam Products, Inc. to the [redacted] south site. The plan also takes into account discussions held at our meeting on July 23.

Comment:
Your plan needs to more clearly define the monitoring network that you propose to observe during the aquifer tests at this site. Please submit an addendum to this pre-drilling plan that shows on a map of appropriate scale the locations you intend to observe. List the names, addresses and phone numbers of the contact person at each location. Install a nested pair of piezometers in the wetland areas adjacent to the well sites and monitor water level before, during and after the test. Show the location of all piezometers on the aforementioned map. Describe the piezometer construction. Describe the method used to collect the water level data, frequency of data collection and corrections necessary to make the data useful. Collect enough background data in your monitoring network to provide a meaningful trend before, during and after your aquifer test.

Response:

ARCADIS plans to either modify (ream out to 8-inch diameter minimum) the existing [redacted] south pilot boring or construct a new test well at the [redacted] south site. This letter outlines the monitoring network that ARCADIS plans to use when conducting the aquifer test on the modified pilot boring or new test well (proposed Municipal Supply Well) at the Shuhler south site.

If a new well is installed at the [redacted] south site it will be a 8-inch diameter well minimum. As stated in our letter dated May 21, 2004, this well will conform to PADEP and AWWA specifications for municipal supply wells as would the pilot boring if reamed out. A submersible pump will be used to conduct the aquifer test. Monitoring of water levels before, during, and after the aquifer pumping test will be performed as described in the following paragraphs.

The monitoring network for the aquifer pumping test will include a municipal supply well, nearby residential and monitoring wells in addition to observation wells and surface water monitoring points installed specifically for the aquifer pumping test (test). The locations of the intended monitoring points are shown on Figure 1. Table 1 presents construction details for the monitoring points and general details of the monitoring protocol. Table 2 present a more detailed description of the monitoring protocol. Table 3 provides details of the logarithmic measurement schedule that will be followed.

Test-Specific Observation Points

Depending upon the ability to obtain access to nearby properties as many as four or five wells will be installed to monitor the zone from which the pumping well draws water dependent on whether ARCADIS modifies the existing pilot hole or installs a new test well. As many as five observation wells would be installed if the existing pilot boring is retrofitted for use as the pumping well. As many as four observation wells would be installed if a new pumping well is installed and the existing pilot boring would then be used as an observation well. Under either scenario five observation wells of the same depth as the pumping well would be monitored during the test depending upon the ability to obtain access to nearby properties. These additional observation wells will be installed in the vicinity of the pumping well (Figure 1) to define the impacts of pumping from the test well or modified pilot boring. These observation wells will be six inches in diameter with 6 inch nominal diameter steel casing firmly seated in bedrock. The total depth of these additional wells is expected to be approximately 300 feet below land surface.

Residential Well Monitoring

Residential wells will be monitored to quantify the potential effects of pumping the test well. ARCADIS is presently in the process of identifying and contacting the inhabitants of the residences across Route 100 from the [redacted] south site. A field visit will be performed to identify what residential wells are accessible for monitoring during the aquifer test and a representative well or wells will be selected from this group of residences. Other residential wells will also be included in the monitoring network (see Tables 1 and 2 for details).

Stream and Wetlands Monitoring

Two piezometer nests will be installed in the stream to evaluate the potential impacts of pumping on the stream and its associated wetlands. One nest will be installed upstream of the pumping well near the Route 100 bridge. The second nest will be installed downstream of the pumping well near the northern property boundary of the [redacted] south site. The construction details of the proposed piezometer nests are shown on Figure 2. Piezometers will be monitored to define vertical gradients, before, during, and after the aquifer pumping test. Each nested pair of piezometers will have one piezometer screened below the stream bed or wetland surface, and a second piezometer open to the water standing above the streambed or wetland base. This configuration will permit any change in vertical gradient to be quantified. For details of piezometer monitoring see table 2. Water from the aquifer pumping test will be discharged downstream of the piezometers installed for wetland/stream monitoring via leak proof piping.

Additional Monitoring Points

Municipal Supply Well No.1, a community water supply well (Trailer Park Well), and three existing Bally Groundwater Contamination Site monitoring wells, monitoring wells (87-71, 87-81, and 92-191) will be monitored during the test. Additionally an amp meter with chart recorder, or other instrument, may be connected to the Bally Ribbon Mill (BRM) well to identify when this well operates.

Data Corrections

Upon completion of the data collection, the data will be compiled and reviewed to determine the need, if any, for corrections/adjustments. Potential corrections include pumping influences from the BRM well, and barometric pressure fluctuations. The chart recorder mentioned above will be used to aid in correcting effects from pumping the BRM well. Barometric pressure and precipitation data will be collected from the nearest weather monitoring station that is available online.

Well Construction

ARCADIS has previously described the planned pumping well construction details in the Pre-Drilling Plan (PDP) submitted to PADEP in June of 2003. The PDP was approved by the PADEP in July of 2003. However, at the request of PADEP ARCADIS will reiterate the details of the well construction here.

ARCADIS will either retrofit the existing pilot boring at [redacted] south or install a new test well. This decision will be based on access, appropriate wellhead protection zone and affect on development plans.

- Method of Drilling

The proposed test well will be drilled using an air rotary drill rig.

- Well Construction

The test well will be an open borehole well, constructed in accordance with the A100 standards set forth by the American Water Well Association (AWWA).

- Casing Installation

The casing shall extend from land surface to a depth at least 10 feet below the surface of competent bedrock. The casing will be constructed of low carbon steel in accordance with the requirements of the American Water Well Association (AWWA), as specified by the PADEP. The casing will be emplaced using an appropriate drive shoe to prevent damage to the casing. Centralizers will be used to maintain the annular space on all sides of the well. During emplacement of the casing, the plumbness of the sections will be monitored and following completion of casing installation, a plumbness and alignment test will be performed. To facilitate the placement of grout between the casing and borehole wall, the diameter of the borehole will be a minimum of 4.0 inches greater than the diameter of the casing to produce a minimum annular space of 2 inches on all sides of the casing. A grout mixture of 95% cement and 5% bentonite will be pumped in from the bottom of the casing up, in a single lift using a tremie pipe.

Step Pumping Test

Following the retrofitting of the pilot boring or installation of the test well a step test (well will be pumped at several different rates) will be conducted to determine the proposed rate for the 7-day pumping test. Currently the proposed rate for the well is 300 gallons per minute (gpm). Once the step test is completed the proposed rate will

be communicated to the PADEP, USEPA, and Borough of Bally and whether it varies from the goal of 300 gpm.

ARCADIS will consider weather (precipitation) prior to the test or forecasted for early in the test in determining when to start the pumping test. To the extent practical we will avoid running the test during or just after significant precipitation events that potentially could make the test data subject to various interpretations. In addition, the pumping test may be extended if significant precipitation occurs during the test.

Summary

ARCADIS believes that the monitoring network described in this text and its attachments is sufficient to evaluate the potential hydrogeologic effects of operating a municipal supply well at the [redacted]south site. Please provide us your comments or approval of the plan outlined above as soon as possible.

Sincerely,

ARCADIS G&M, Inc.

Michael F. Bedard, P.E.
Project Manager

Attachments

Copies:
Susan Werner, PADEP
Tom Grub, PADEP
Mitch Cron, USEPA
Kathy Davies, USEPA
Toni Hemerka, Bally Borough
Greg Unger, Systems Design Engineering, Inc.
Jeff Peffer, Peffer Geotechnical Corp.
Lorelei Borland, American Household, Inc.
Chris Akins, Sunbeam Products, Inc.
Chris Ann Gahagan, Sunbeam Products, Inc.

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Table 1 Monitoring Point Details and Monitoring Protocol for the 7-day Aquifer Pumping Test, Bally, Pennsylvania

Well ID	Primary Data Collection Purpose	Distance from [redacted] Test Well[2]	Reference Point Elevation[1]	Total Depth[2]	Open Interval[2]	Pre-Test Monitoring Method	Pre-Test Monitoring Frequency	Test Monitoring Method	Test Monitoring Frequency	Post-Test Monitoring Method	Post-Test Monitoring Frequency
[redacted] Test Well	C	NA	NA	300*	NA	Data Logger	CI	Data Logger	Logarithmic	Data Logger	CI
[redacted] Pilot Boring	A	235	NA	300	NA	Data Logger	CI	Data Logger	Logarithmic	Data Logger	CI
[redacted] OW-01	A	1,085	NA	300*	NA	Data Logger	CI	Data Logger	Logarithmic	Data Logger	CI
[redacted] OW-02	A	785	NA	300*	NA	Data Logger	CI	Data Logger	Logarithmic	Data Logger	CI
[redacted] OW-03	A	445	NA	300*	NA	Data Logger	CI	Data Logger	Logarithmic	Data Logger	CI
[redacted] OW-04	A	870	NA	300*	NA	Data Logger	CI	Data Logger	Logarithmic	Data Logger	CI
[redacted] North Residential Well	B	2,338	NA	150**	NA	Data Logger	CI	Data Logger	CI	Data Logger	CI
[redacted] South Piezometer Nest 1[3]	D	500	NA	5*	NA	Data Logger	CI	Data Logger	CI	Data Logger	CI
[redacted] South Piezometer Nest 2[3]	D	533	NA	5*	NA	Data Logger	CI	Data Logger	CI	Data Logger	CI
[redacted] South Residential Well	B	402	NA	~75	NA	Data Logger	CI	Data Logger	CI	Data Logger	CI
[redacted] Residential Well	B	983	NA	NA	NA	Data Logger	CI	Data Logger	CI	Data Logger	CI
[redacted] Residential Well	B	1,189	NA	NA	NA	Data Logger	CI	Data Logger	CI	Data Logger	CI
[redacted] Residential Well	B	2,515	440	NA	NA	Data Logger	CI	Data Logger	CI	Data Logger	CI
87-8I	A	2,152	449	132.8	60-132	Data Logger	CI	Data Logger	CI	Data Logger	CI
Municipal Well #1	A	2,693	472	272	NA	Data Logger	CI	Data Logger	CI	Data Logger	CI
92-19I	A	3,461	453	190	170-190	Data Logger	CI	Data Logger	CI	Data Logger	CI
87-7I	A	3,682	469	133	103-132	Data Logger	CI	Data Logger	CI	Data Logger	CI
Trailer Park Well	B	2,268	NA	NA	NA	Data Logger	CI	Data Logger	CI	Data Logger	CI
Residential Well (Wells) West of Route 100	B	varies	NA	NA	NA	Data Logger	CI	Data Logger	CI	Data Logger	CI

Notes:

A) Aquifer characteristics and potential plume impact

B) Affect on residential well yields

C) Long term yield

D) Effect on stream/wetlands

[1] Feet above mean sea level

[2] Feet below land surface

[3] Piezometer nests will monitor 2 depths, surface water and the interval 4-5 feet below land surface

[4] This well will not be monitored if plans are to abandon well

* = Planned depth, well not yet installed

** = Based upon annecdotal information

NA = Information not availible at time of publication

CI = Constant Interval

Hand = Hand Measurments with a M-Scope

One or more residential wells across Route 100 from the Shuhler south site may be monitored see text of plan for details

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Table 2. Details of Monitoring Point Monitoring Frequencies for the 7-day Aquifer Pumping Test, Bally, Pennsylvania

Well ID	Pre-test		Test		Post-Test	
	Duration of Monitoring[1]	Monitoring Inteval	Duration of Monitoring[2]	Monitoring Inteval5	Duration of Monitoring[3]	Monitoring Inteval
[redacted] Test Well	2 to 4 Weeks	30 Minutes	7.25 days	Logarithmic*	2 to 4 Weeks	30 Minutes
[redacted] Pilot Boring	2 to 4 Weeks	30 Minutes	7.25 days	Logarithmic*	2 to 4 Weeks	30 Minutes
[redacted] OW-01	2 to 4 Weeks	30 Minutes	7.25 days	Logarithmic*	2 to 4 Weeks	30 Minutes
[redacted] OW-02	2 to 4 Weeks	30 Minutes	7.25 days	Logarithmic*	2 to 4 Weeks	30 Minutes
[redacted] OW-03	2 to 4 Weeks	30 Minutes	7.25 days	Logarithmic*	2 to 4 Weeks	30 Minutes
[redacted] OW-04	2 to 4 Weeks	30 Minutes	7.25 days	Logarithmic*	2 to 4 Weeks	30 Minutes
[redacted] North Residential Well**	1 Week	30 Minutes	7.25 days	Logarithmic*	1 Week	30 Minutes
[redacted] South Piezometer Nest 1	2 to 4 Weeks	30 Minutes	7.25 days	Logarithmic*	2 to 4 Weeks	30 Minutes
[redacted] South Piezometer Nest 2	2 to 4 Weeks	30 Minutes	7.25 days	Logarithmic*	2 to 4 Weeks	30 Minutes
[redacted] South Residential Well	1 Week	30 Minutes	7.25 days	Logarithmic*	1 Week	30 Minutes
[redacted] Residential Well**	1 Week	30 Minutes	7.25 days	Logarithmic*	1 Week	30 Minutes
[redacted] Residential Well**	1 Week	30 Minutes	7.25 days	Logarithmic*	1 Week	30 Minutes
[redacted] Residential Well**	1 Week	30 Minutes	7.25 days	Logarithmic*	1 Week	30 Minutes
87-8I	2 to 4 Weeks	30 Minutes	7.25 days	Logarithmic*	2 to 4 Weeks	30 Minutes
Municipal Well #1**	2 to 4 Weeks	30 Minutes	7.25 days	Logarithmic*	2 to 4 Weeks	30 Minutes
92-19I	2 to 4 Weeks	30 Minutes	7.25 days	Logarithmic*	2 to 4 Weeks	30 Minutes
87-7I	2 to 4 Weeks	30 Minutes	7.25 days	Logarithmic*	2 to 4 Weeks	30 Minutes
Trailer Park Well**	1 Week	30 Minutes	7.25 days	Logarithmic*	1 Week	30 Minutes
Bally Ribbon Mill Well[4]	2 to 4 Weeks		7.25 days		2 to 4 Weeks	
Residential Well (Wells) West of Route 100*	1 Week	30 Minutes	7.25 days	Logarithmic*	1 Week	30 Minutes

Notes:

[1] Prior to test.

[2] During drawdown and recovery period. Recovery period is expected to be less than 6 hours, however the actual recovery monitoring period will be based on field observations.

[3] After conclusion of test

[4] To be monitored for pump activity only, see text.

[5] See Table 3 for logarithmic monitoring intervals

* = Logarithmic interval will become a constant interval once the inteval length has reached 30 minutes.

** = This location will be checked to assess the potential for installing a datalogger.

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Table 3. Details of Logarithmic Monitoring Frequencies for the Pumping and Recovery Phases, Bally, Pennsylvania.

	TIME TO NEXT POINT				ELAPSED TIME				
N	hr	min	sec	hdrd	day	hr	min	sec	hdrd
1	0	0	0	30	0	0	0	0	0
2	0	0	0	30	0	0	0	0	30
3	0	0	0	30	0	0	0	0	60
4	0	0	0	30	0	0	0	0	90
5	0	0	0	30	0	0	0	1	20
6	0	0	0	30	0	0	0	1	50
7	0	0	0	30	0	0	0	1	80
8	0	0	0	30	0	0	0	2	10
9	0	0	0	30	0	0	0	2	40
10	0	0	0	30	0	0	0	2	70
11	0	0	0	30	0	0	0	3	0
12	0	0	0	30	0	0	0	3	30
13	0	0	0	30	0	0	0	3	60
14	0	0	0	30	0	0	0	3	90
15	0	0	0	30	0	0	0	4	20
16	0	0	0	30	0	0	0	4	50
17	0	0	0	30	0	0	0	4	80
18	0	0	0	30	0	0	0	5	10
19	0	0	0	30	0	0	0	5	40
20	0	0	0	30	0	0	0	5	70
21	0	0	0	35	0	0	0	6	0
22	0	0	0	37	0	0	0	6	35
23	0	0	0	39	0	0	0	6	72
24	0	0	0	42	0	0	0	7	11
25	0	0	0	44	0	0	0	7	53
26	0	0	0	47	0	0	0	7	97
27	0	0	0	50	0	0	0	8	44
28	0	0	0	53	0	0	0	8	94
29	0	0	0	56	0	0	0	9	47
30	0	0	0	59	0	0	0	10	3
31	0	0	0	63	0	0	0	10	62
32	0	0	0	66	0	0	0	11	25
33	0	0	0	70	0	0	0	11	91
34	0	0	0	75	0	0	0	12	61
35	0	0	0	79	0	0	0	13	36
36	0	0	0	84	0	0	0	14	15
37	0	0	0	89	0	0	0	14	99
38	0	0	0	94	0	0	0	15	88
39	0	0	1	0	0	0	0	16	82
40	0	0	1	6	0	0	0	17	82
41	0	0	1	12	0	0	0	18	88
42	0	0	1	19	0	0	0	20	0
43	0	0	1	26	0	0	0	21	19
44	0	0	1	33	0	0	0	22	45
45	0	0	1	41	0	0	0	23	78

Table 3. Details of Logarithmic Monitoring Frequencies for the Pumping and Recovery Phases. Bally, Pennsylvania.

	TIME TO NEXT POINT				ELAPSED TIME				
N	hr	min	sec	hdrd	day	hr	min	sec	hdrd
46	0	0	1	49	0	0	0	25	19
47	0	0	1	50	0	0	0	26	68
48	0	0	1	60	0	0	0	28	18
49	0	0	1	70	0	0	0	29	78
50	0	0	1	80	0	0	0	31	48
51	0	0	1	90	0	0	0	33	28
52	0	0	2	10	0	0	0	35	18
53	0	0	2	20	0	0	0	37	28
54	0	0	2	30	0	0	0	39	48
55	0	0	2	50	0	0	0	41	78
56	0	0	2	60	0	0	0	44	28
57	0	0	2	80	0	0	0	46	88
58	0	0	2	90	0	0	0	49	68
59	0	0	3	10	0	0	0	52	58
60	0	0	3	30	0	0	0	55	68
61	0	0	3	50	0	0	0	58	98
62	0	0	3	70	0	0	1	2	48
63	0	0	3	90	0	0	1	6	18
64	0	0	4	20	0	0	1	10	8
65	0	0	4	40	0	0	1	14	28
66	0	0	4	70	0	0	1	18	68
67	0	0	5	0	0	0	1	23	38
68	0	0	5	30	0	0	1	28	38
69	0	0	5	60	0	0	1	33	68
70	0	0	5	90	0	0	1	39	28
71	0	0	6	30	0	0	1	45	18
72	0	0	6	60	0	0	1	51	48
73	0	0	7	0	0	0	1	58	8
74	0	0	7	50	0	0	2	5	8
75	0	0	7	90	0	0	2	12	58
76	0	0	8	40	0	0	2	20	48
77	0	0	8	90	0	0	2	28	88
78	0	0	9	40	0	0	2	37	78
79	0	0	10	0	0	0	2	47	18
80	0	0	10	60	0	0	2	57	18
81	0	0	11	20	0	0	3	7	78
82	0	0	11	90	0	0	3	18	98
83	0	0	12	60	0	0	3	30	88
84	0	0	13	30	0	0	3	43	48
85	0	0	14	10	0	0	3	56	78
86	0	0	14	90	0	0	4	10	88
87	0	0	15	80	0	0	4	25	78
88	0	0	16	80	0	0	4	41	58
89	0	0	17	80	0	0	4	58	38
90	0	0	18	80	0	0	5	16	18

Table 3. Details of Logarithmic Monitoring Frequencies for the Pumping and Recovery Phases, Bally, Pennsylvania.

	TIME TO NEXT POINT				ELAPSED TIME				
N	hr	min	sec	hdrd	day	hr	min	sec	hdrd
91	0	0	19	90	0	0	5	34	98
92	0	0	21	10	0	0	5	54	88
93	0	0	22	40	0	0	6	15	98
94	0	0	23	70	0	0	6	38	38
95	0	0	25	10	0	0	7	2	8
96	0	0	26	60	0	0	7	27	18
97	0	0	28	20	0	0	7	53	78
98	0	0	29	90	0	0	8	21	98
99	0	0	31	60	0	0	8	51	88
100	0	0	33	50	0	0	9	23	48
101	0	0	35	50	0	0	9	56	98
102	0	0	37	60	0	0	10	32	48
103	0	0	39	80	0	0	11	10	8
104	0	0	42	20	0	0	11	49	88
105	0	0	44	70	0	0	12	32	8
106	0	0	47	40	0	0	13	16	78
107	0	0	50	20	0	0	14	4	18
108	0	0	53	10	0	0	14	54	38
109	0	0	56	30	0	0	15	47	48
110	0	0	59	60	0	0	16	43	78
111	0	1	3	20	0	0	17	43	38
112	0	1	6	90	0	0	18	46	58
113	0	1	10	90	0	0	19	53	48
114	0	1	15	10	0	0	21	4	38
115	0	1	19	50	0	0	22	19	48
116	0	1	24	30	0	0	23	38	98
117	0	1	29	30	0	0	25	3	28
118	0	1	34	50	0	0	26	32	58
119	0	1	40	10	0	0	28	7	8
120	0	1	46	10	0	0	29	47	18
121	0	1	52	40	0	0	31	33	28
122	0	1	59	0	0	0	33	25	68
123	0	2	6	10	0	0	35	24	68
124	0	2	13	60	0	0	37	30	78
125	0	2	21	50	0	0	39	44	38
126	0	2	29	90	0	0	42	5	88
127	0	2	38	80	0	0	44	35	78
128	0	2	48	20	0	0	47	14	58
129	0	2	58	10	0	0	50	2	78
130	0	3	8	70	0	0	53	0	88
131	0	3	19	90	0	0	56	9	58
132	0	3	31	70	0	0	59	29	48
133	0	3	44	30	0	1	3	1	18
134	0	3	57	60	0	1	6	45	48
135	0	4	11	60	0	1	10	43	8

Table 3. Details of Logarithmic Monitoring Frequencies for the Pumping and Recovery Phases. Bally, Pennsylvania.

	TIME TO NEXT POINT				ELAPSED TIME				
N	hr	min	sec	hdrd	day	hr	min	sec	hdrd
136	0	4	26	60	0	1	14	54	68
137	0	4	42	40	0	1	19	21	28
138	0	4	59	10	0	1	24	3	68
139	0	5	16	80	0	1	29	2	78
140	0	5	35	60	0	1	34	19	58
141	0	5	55	50	0	1	39	55	18
142	0	6	16	50	0	1	45	50	68
143	0	6	38	90	0	1	52	7	18
144	0	7	2	50	0	1	58	46	8
145	0	7	27	50	0	2	5	48	58
146	0	7	54	0	0	2	13	16	8
147	0	8	22	10	0	2	21	10	8
148	0	8	51	90	0	2	29	32	18
149	0	9	23	40	0	2	38	24	8
150	0	9	56	80	0	2	47	47	48
151	0	10	32	20	0	2	57	44	28
152	0	11	9	60	0	3	8	16	48
153	0	11	49	30	0	3	19	26	8
154	0	12	31	30	0	3	31	15	38
155	0	13	15	90	0	3	43	46	68
156	0	14	3	0	0	3	57	2	58
157	0	14	53	0	0	4	11	5	58
158	0	15	45	90	0	4	25	58	58
159	0	16	41	90	0	4	41	44	48
160	0	17	41	30	0	4	58	26	38
161	0	18	44	20	0	5	16	7	68
162	0	19	50	80	0	5	34	51	88
163	0	21	1	40	0	5	54	42	68
164	0	22	16	10	0	6	15	44	8
165	0	23	35	30	0	6	38	0	18
166	0	24	59	20	0	7	1	35	48
167	0	26	28	0	0	7	26	34	68
168	0	28	2	10	0	7	53	2	68
169*	0	29	41	80	0	8	21	4	78

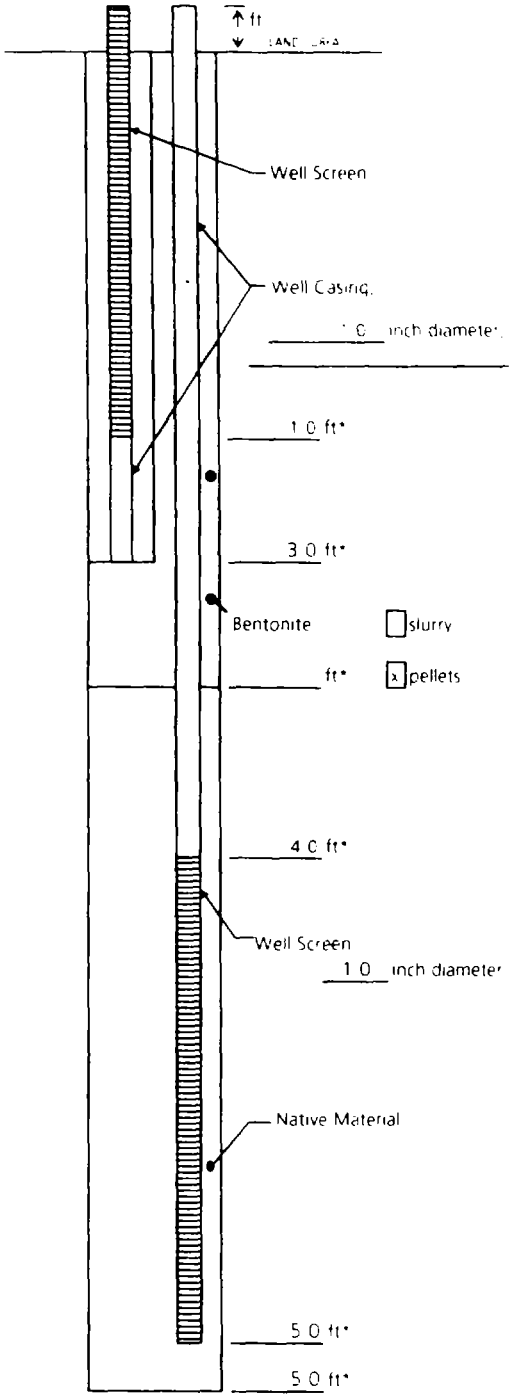
N = Data Point Number

* = Data points will be collected at 30 minute intervals from this data point until end of the pumping portion of the test with the recovery portion of the test started as a new logarithmic test.

ARCADIS G&M

Proposed Well Construction Diagram

(Unconsolidated)



Project NP000597 0002 0005 Well Piezo Nest 1 & 2

Town/City Washington Township

County Berks State PA

Permit No.

Land-Surface Elevation and Datum

feet ☐ Surveyed ☐ Estimated

Installation Date(s)

Drilling Method Direct Push

Drilling Contractor

Well Purpose Observation, temporary

Remarks

Prepared by

Measuring Point is
Top of Well Casing
Unless Otherwise Noted

* Depth Below Land Surface

Piezo 1 & 2 Proposed Piezo Nest 1 & 2

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Imagery Insert Form

Site Name: Bally Groundwater **Document ID:** 2050645

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